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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/725,789 | 12/02/2003 | Guodong Zhang | I-2-0591.1US | 3817 |

24374 7590 11/16/2006

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EXAMINER

SHARMA, SUJATHA R

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,789

Applicant(s)

ZHANG, GUODONG

Examiner

Sujatha Sharma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] in view of Ginis [US 2003/0086514].

Regarding claim 1, Koo discloses a method for adjusting the initial downlink transmission power for non-real time data. Koo further discloses a method comprising the steps of:

- estimating an initial downlink transmit power level for non-real-time services; See page 2, paragraphs 16-18
- comparing the estimated power level with a threshold; see page 2, paragraphs 14,16-18
- based on the comparison, adjusting the initial downlink transmit power level by a predetermined amount. See page 2, paragraphs 16-18

However, Koo fails to explicitly disclose a method wherein determining whether an increase in the estimated power level would degrade services in neighboring cells and based on the determining step, adjusting the initial downlink power level.

Ginis, in the same filed of endeavor, teaches a method of adjusting the initial downlink transmission power of the base station transmitter. Ginis further teaches a method of determining whether an increase in the estimated power level would degrade services in neighboring cells and

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accordingly adjusting the initial downlink power. See page 4, paragraphs 35,39 and page 6, paragraph 68

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Ginis to Koo to provide a more precise method of power control and ensure desired communication quality level at the mobile terminal.

2. Claims 2,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494].

Regarding claims 2,8, Koo as treated in claim 1 discloses a method for initial downlink transmit power adjustment for non-real time services in a wireless communications network, comprising the steps of:

- estimating an initial downlink transmit power level for non-real-time services; See page 2, paragraphs 16-18
- comparing the estimated carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result. See page 2, paragraphs 14,16-18

Koo, however, does not disclose a method of calculating an estimated slot carrier power; and comparing the estimated slot carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result.

Ostman, in the same filed of endeavor, teaches a method of calculating an estimated slot carrier power; and comparing the estimated slot carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result. See col. 2, line 17 – col. 2, line 24; col. 5, line 4 – col. 6, line 16.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Ostman to modified Koo to reduce interference and ensure a desired communication quality level at the mobile terminal.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494] and further in view of Buot [US 2004/0141473].

Regarding claim 3, Koo as treated in claim 2 discloses all the limitations as claimed. However he fails to disclose a method wherein said calculating an estimated slot carrier power level step includes adding the estimated initial downlink transmit power to a current slot carrier power.

Buot, in the same filed of endeavor, teaches a method wherein the cell power is determined based on the current power and estimated power increase. See page 4, paragraph 53 and page 5, paragraph 11.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Buot to modified Koo in order to reduce interference and ensure a desired communication quality level at the mobile terminal.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494] and further in view of Hanley [US 6,198,910].

Regarding claim 4, Koo as treated in claim 2, discloses all the limitations as claimed. However he does not disclose a method wherein said comparing step includes comparing the estimated slot carrier power with a minimum carrier power level of a Node B.

Hanley, in the same field of endeavor, teaches a method wherein said comparing step includes comparing the estimated slot carrier power with a minimum carrier power level of a Node B. See col. 7, lines 27-48

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Hanley to modified Koo in order to determine the minimum base station/Node B transmit power required to meet the quality criteria.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494] and further in view of Hanley [US 6,198,910] and further in view of Bringby [US 6,175,745].

Regarding claim 5, Koo as treated in claim 4, discloses all the limitations as claimed. However he does not disclose a method wherein said wherein said adjusting step includes increasing the initial downlink transmit power, whereby the total carrier power equals the minimum carrier power plus a margin value.

Bringby, in the same field of endeavor, teaches a method wherein said adjusting step includes increasing the initial downlink transmit power, whereby the total carrier power equals the minimum carrier power plus a margin value. See col. 5, line 58 – col. 6, line 9.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Bringby to modified Koo in order to determine the minimum base station/Node B transmit power required to meet the quality criteria.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494] and further in view of Suonsivu [US 6,542,581].

Regarding claim 6, Koo as treated in claim 2 discloses all the limitations as claimed. However, he fails to disclose a method wherein said comparing step includes determining if the estimated slot carrier power is greater than a minimum carrier power level of a Node B and less than a carrier power threshold.

Suonsivu, in the same filed of endeavor, discloses a method wherein said comparing step includes determining if the estimated slot carrier power is greater than a minimum carrier power level of a Node B and less than a carrier power threshold. See Fig.3, col. 2, lines 59-67 and col. 5, lines 12-49.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Suonsivu to modified Koo in order to determine the minimum base station/Node B transmit power required while still providing sufficient transmission quality.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ginis [US 2003/0086514] in view of Ostman [US 6,529,494] and further in view of Suonsivu [US 6,542,581] and further in view of Yun [US 6,463,295].

Regarding claim 7, Koo as treated in claim 6 discloses all the limitations as claimed. However, he fails to disclose a method of increasing the initial downlink transmit power, whereby the total carrier power equals the greater of the minimum carrier power plus a first margin value and the estimated slot carrier power plus a second margin value.

Yun, in the same filed of endeavor, discloses a method of increasing the initial downlink transmit power, whereby the total carrier power is a function of the minimum/target carrier power and the estimated slot carrier power and a margin value. See col. 27, lines 45-62, col. 28, line 52 – col. 29, line 67.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Yun to modified Koo in order to determine the minimum base station/Node B transmit power required while still providing sufficient transmission quality.

Response to Arguments


8. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sujatha Sharma
June 7, 2006